

## **ABSTRACT**

*Depression is a mental health disorder that significantly impacts quality of life and is often detected too late. One potential approach to address the limitations of early detection is the use of automated text-based systems, such as chatbots, that can recognize users' language patterns. This study develops a depression classification system based on conversation by utilizing interview transcripts from the DAIC-WOZ dataset as input and producing depression condition classifications as output. The system is built using a language model specifically trained in the mental health domain, namely MentalBERT. To overcome the model's input length limitations, semantic segmentation is applied to the text to preserve conversational context. The training process involves adjusting key parameters such as learning rate, number of epochs, batch size, and regularization settings to prevent overfitting. Evaluation is conducted on two levels—conversation blocks and complete participant sessions to assess prediction stability. Results show that the model can detect depression indications with strong performance, achieving an F1-score of 74,57% and 78,72% accuracy at the session level. The contribution of this study lies in the implementation of a domain-specific language model and an effective semantic segmentation strategy for early-stage text-based depression screening systems.*

**Keywords:** Depression, Chatbot, DAIC-WOZ, MentalBERT, Segmentation, Classification